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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/825,048	04/03/2001	George J. Hudak	10003917-1	1993

7590 01/09/2003

AGILENT TECHNOLOGIES  
Legal Department, 51U-PD  
Intellectual Property Administration  
P.O. Box 58043  
Santa Clara, CA 95052-8043

EXAMINER

CHERRY, EUNCHA P

ART UNIT PAPER NUMBER

2872

DATE MAILED: 01/09/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/825,048

Applicant(s)

HUDAK, GEORGE J.

Examiner

EUNCHA P. CHERRY

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

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**DETAILED ACTION**

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-3, 7-10, 13, 14, 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Braymen in view of Partain et al.

Braymen discloses a gas plasma emission source (figure 3) comprising: a resonant cavity (32); and a solid state power source coupled to the resonant cavity (12 and column 5, lines 23), wherein a cable is coupled between the solid state power source and the resonant cavity (16, 30) and the resonant cavity includes a tube disposed through the resonant cavity (inherent, otherwise sample 25 will leak). The solid state power source couples into the resonant cavity sufficient power to sustain a plasma in a gas disposed within the resonant cavity (column 5, lines 50-55), the plasma constitutes a fluctuation load with respect to the fluctuating load on the solid state power source

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and the sufficient power is substantially stable with respect to the fluctuating load (inherent). The spectrographic detector is disposed to sense atomic emissions from a gas within the resonant cavity (column 5, line 58 - column 6, line 10).

Braymen does not disclose the resonant cavity to excite resonant oscillations in the resonant cavity. Partain et al discloses the resonant cavity to excite resonant oscillations in the resonant cavity (see column 9, lines 19-52). The waveguide can be a co-axial tube (column 9, line 40). It would have been obvious to one of ordinary skill in the art to excite resonant oscillations in the resonant cavity so that the device can detects any small changes in the oscillation and resonant circuit structures.

It is further noted that the reference meets all the claimed structure as set forth in support of a manner of using the device, and therefore inherently must be capable of this use in the same manner as structure of the claims.

3. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Akiyoshi et al in view of Partain et al.

Akiyoshi et al discloses a gas plasma emission source (figure 12) comprising: a resonant cavity (409); and a solid state power source coupled to the resonant cavity (column 15, lines 14-35 and column 16, lines 21-28). The solid state power

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source includes an oscillator and amplifier (column 16, lines 21-28). Akiyoshi et al does not disclose the resonant cavity to excite resonant oscillations in the resonant cavity. Partain et al discloses the resonant cavity to excite resonant oscillations in the resonant cavity (see column 9, lines 19-52). It would have been obvious to one of ordinary skill in the art to excite resonant oscillations in the resonant cavity so that the device can detect any small changes in the oscillation and resonant circuit structures.

4. Claims 4, 5, 11, 12, 15 and 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Braymen in view of Partain et al.

Braymen in view of Partain et al discloses the claimed invention as set forth above except that the power is less than 300 watts or 100 watts. It would have been obvious to one having ordinary skill in the art at the time the invention was made to choose a power level that does not damage the cable, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. One would have been motivated to choose a power level for the purpose of minimizing a possibility of damaging cable between the power source and the resonant cavity.

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It is further noted that the reference meets all the claimed structure as set forth in support of a manner of using the device, and therefore inherently must be capable of this use in the same manner as structure of the claims.

### ***Response to Arguments***

5. Applicant's arguments with respect to claims have been considered but are moot in view of the new ground(s) of rejection.

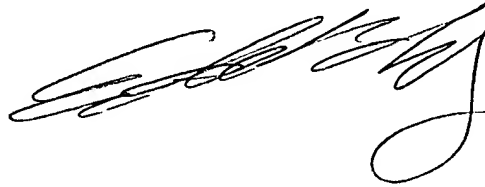
### ***Conclusion***

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to EUNCHA P. CHERRY whose telephone number is 703-305-0997. The examiner can normally be reached on M-F 6:30-4:00, alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, CASSANDRA SPYROU can be reached on 703-308-1687. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-7722 for regular communications and 703-308-7724 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

A handwritten signature in black ink, appearing to read 'Euncha Cherry', written in a cursive style.

Euncha Cherry  
January 7, 2003